Instruction Leaflet

Interfaker 3

RS **stock no. 255-042**

MT25 MK3 interface tester and breakout box

The Modular Technology MT25 Interfaker™ 3 is an essential piece of diagnostic and troubleshooting equipment for anyone dealing with datacomm interfaces (CCITT V.24 or EIA RS232). It has 21 LEDs for monitoring, a 200mm data cable with plug, a data socket, two 25-way patching sockets, and gives you facilities for:

a. Continuous monitoring on eighteen of the most-used data and handshaking lines, with LED's indicating an ON (except XCIk and RCIk - OFF to ON).
b. Patched monitoring for the remaining lines, and also for checking for both OFF - going and ON - going glitches on any line - and the D-patch sockets will accept most scope probes.
c. Breaking out of any lines (except Protection Ground) using submarine switches.
d. Cross-patching of lines (we give you a selection of patch-leads).
e. Forcing the lines ON or OFF by patching to the +V or -V outlet sockets.
f. Automatic lamp test when first switched on the automatic lamp test forces all 21 LED's into an on condition for a short period. Allowing the user to check for the correct operation.

Thus, not only can you see just what your interfaces are doing, you can also 'fake' nonstandard connections or conditions with the greatst of ease. Interfaker is powered by 3 x AA alkaline batteries, and comes in a neat, pocketsized case with hinged lid.

Continuous monitoring

PIN	CCITT	EIA	Legend	Name
2	103	BA	**XMT**	Transmitted data
3	104	BB	**RCV**	Recieved data
4	105	CA	**RTS**	Request to send
5	106	CB	**CTS**	Clear to send
6	107	CC	**DSR**	Data set ready
8	109	CF	DCD	Data carrier detect
11	126	CG	STF	Select transmit freqs.
12	122	SCF	DCD	Secondary DCD
13	121	SCB	CTS	Secondary CTS
14	118	SBA	XMT	Secondary XMT
*15	114	DB	XClk	Transmit clock
16	119	SBB	RCV	Secondary RCV
*17	115	DD	RClk	Recieved clock
19	120	SCA	RTS	Secondary RTS
20	108/1 108/2	CD	DTR	Connect d-set to line Data terminal ready
22	125	CE	RI	Ringing indicator
23	111	CH	DRS	Data rate select
25			BY	Busy ; Standby

LED on = ON, binary 0, + > 3v, space.
*LED on = OFF to ON transition.

Pin assignment of some circuits may differ in practice.

Patched monitoring

- LED on = Off, binary 1, - > 3V, mark.
TLL LED on = Pos or Neg Pulse on line.
+ LED on = ON, binary 0, + >3v, space.

Circuit loading by LED drivers is typically 30kΩ.

Forcing

Sockets provide two outputs at +V and two at -V for patching into (previously broken) interface lines. Each outlet will drive at least one worst-case V.28 load (3kΩ) and is short-circuit protected.

Power

3 x AA or equivalent, but don't use a mains unit with these connected! Battery life depends on usage (typically two months). A 2.5mm miniature jack socket is provided for an external power supply or for NiCd charging (charging circuitry is built-in).

Current Consumption

0.3mA + 4.5mA per LED on.

Switch

Off Power to +V outlets only.
On Unit initiates auto lamp test after which the unit is ready for use.

Test Facility

The TEST input can be used to check for correct line signal levels (> 3V + LED on, <- 3V - LED on) and for line transitions or glitches.

1. Line Signal Test

The TEST input is connected to the line required via either patch socket. For line voltages above +3 volts the + LED will light. For line voltages below -3 volts the - LED will light. When data of the correct line signal level is monitored both LED's should come on.

2. Line Signal Transitions

The TEST input is connected to the line and any transitions either positive or negative will cause the centre LED TLL to turn on for approximately 1/10 of a second. Data on the line will cause the LED to flash or remain on constantly.

3. Line Glitches

The TEST input will detect both positive and negative glitches as small as 300nS wide, each glitch causing the centre LED TLL to flash momentarily.

Physical	:	Size 175 x 100 x 36mm L x W x H.
Weight	:	With battery and leads 350g.
Construction	:	Plugs, sockets and data switches are all gold-plated for a long and reliable life.

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